Device Material Content

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Package: 81 csfBGA
Total Device Weight 35.82 Milligrams (mg)

Package Code: MG81
Products: LIF-MD6000

Assembly: ASEK
Size (mm): 4.5 x 4.5
Lead pitch (mm): 0.5
MSL: 3
Reflow max (ºC): 260

	% of Total Pkg. Wt.	Weight (mg)	% of Total Pkg. Wt.	Weight (mg)	Substance	CAS #	% of Subst.	Notes / Assumptions:
Die	14.59%	5.225	14.59%	5.225	Silicon chip	7440-21-3	100.00%	Die size: 2.0 x 2.0 x 0.177mm
Mold Compound	49.52%	17.737	3.06%	1.0961	Epoxy resins	-	6.18%	Sumitomo EME-G311SA Type C
			2.80%	1.0039	Phenol resins	-	5.66%	
			1.40%	0.5020	Metal Hydroxide	-	2.83%	
			2.57%	0.9206	Carbon Black	1333-86-4	5.19%	
			32.69%	11.7082	Silica fused	60676-86-0	66.01%	
			7.00%	2.5080	Silica fused	7631-86-9	14.14%	
Substrate	6.66%	2.3849	2.06%	0.7393	Thermosetting resin	-	31.00%	MGC CCL-HL832NS
			4.53%	1.6217	Continuous Filament Glass	-	68.00%	
			0.07%	0.0238	Bisphenol A*		1.00%	
Solder Mask	1.15%	0.4130	0.125%	0.0448	Diethylene glycol monoethyl ether acetate	112-15-2	10.85%	PFR800 Aus410
			0.002%	0.0008	Phthalocyanine blue	147-14-8	0.19%	
			0.036%	0.0129	Talc (containing no asbestiform fibers)	14807-96-6	3.13%	
			0.062%	0.0222	Dipropylene glycol monomethyl ether	34590-94-8	5.36%	
			0.113%	0.0406	Solvent naphtha(petroleum), Heavy arom.	64742-94-5	9.83%	
			0.009%	0.0032	Silica, amorphous	7631-86-9	0.78%	
			0.164%	0.0586	Barium sulfate	7727-43-7	14.19%	
			0.018%	0.0066	Dipropylene glycol monomethyl ether acetate	88917-22-0	1.59%	
			0.009%	0.0033	Naphthalene (Carc . Cat. 3 ; R40)	91-20-3	0.81%	
			0.007%	0.0025	Deionized water	7732-18-5	0.59%	
			0.607%	0.2175	Other (Trade secret)	-	52.67%	
Foil	10.63%	3.8073	10.623%	3.8050	Copper	7440-50-8	99.94%	
			0.006%	0.0023	OSP	-	0.06%	
Repassivation polyimide	0.07%	0.024	0.037%	0.0132	N-Methyl-2-pyrrolidone	872-50-4	55.00%	HD4000E
			0.0034%	0.0012	Proprietary Monomer	-	5.0%	
			0.0003%	0.0001	Methanol	67-56-1	0.50%	
			0.026%	0.0095	Non regulated ingredients	-	39.50%	
UBM	0.04%	0.016	0.009%	0.0032	Titanium (Ti)	7440-32-6	20.25%	
			0.036%	0.0128	Copper (Cu)	7440-50-8	79.75%	
Bump	3.81%	1.363	3.072%	1.1002	Tin (Sn)	7440-31-5	80.72%	
			0.056%	0.0202	Silver (Ag)	7440-22-4	1.48%	
			0.537%	0.1922	Nickel (Ni)	7440-02-0	14.10%	
			0.141%	0.0506	Copper (Cu)	7440-50-8	3.71%	
Solder Balls	13.54%	4.851	13.306%	4.7661	Tin (Sn)	7440-31-5	98.25%	Sn0.9825Ag1.2Cu0.5Ni0.05
			0.163%	0.0582	Silver (Ag)	7440-22-4	1.20%	
			0.068%	0.0243	Copper (Cu)	7440-50-8	0.50%	
			0.007%	0.0024	Nickel (Ni)	7440-02-0	0.05%	

Notes: SVHC: * 0.07% max. concentration (of total pkg wt.) of Bisphenol A (CAS# 80-05-7), contained in substrate laminate material as impurity - not intentionally added.

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